COMPLETE USER MANUAL

Grinder Winch 40

PONTOS

THE WIND OF CHANGE

NO-005 (Ind C)

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WARRANTY 15

Pontos from Saint Malo in France has introduced a new standard to the world of winches. Our game-changing winches revolutionize the way you manoeuvre. Our products are intended both for new boat builders and for refitting. They are available on our website www.pontos.fr or in our approved retailers.

This technical manual gives important information on dimension, performance, installation, use and maintenance of winches.

Thank you for respecting all the instructions presented in this textbook. The failure to respect these instructions can expose the user to risks of injury or decrease considerably the life expectancy of the winch and limit or cancel the product guarantee.

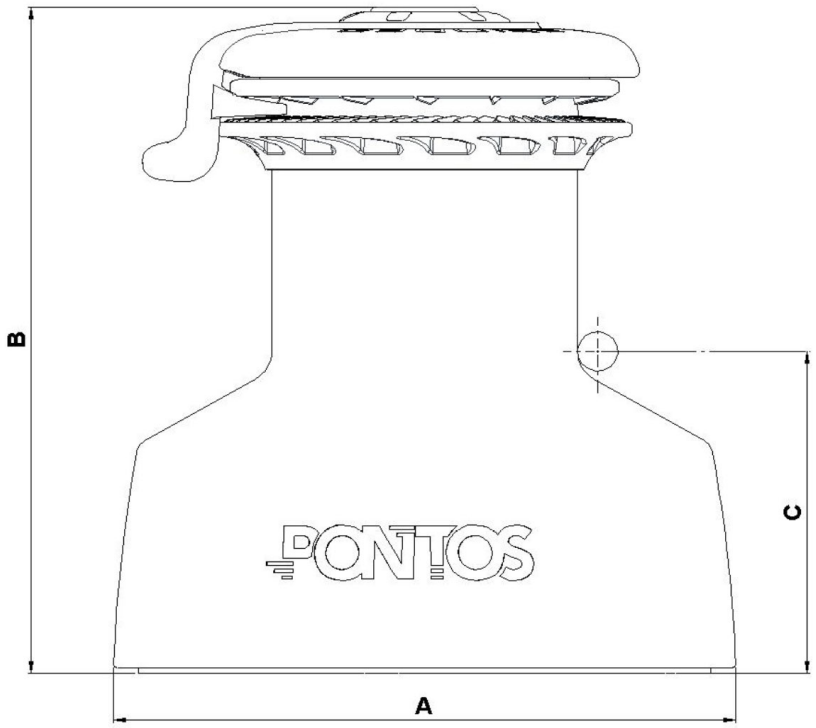
We invite you to read attentively this maintenance manual.

TECHNICAL DATA

Dimension / Weight

DIMENSIONS PONTOS 4 SPEED WINCHS

TRIMMER / GRINDER	Poids / *weight*		MWL		Embase / *Base (A)*		Hauteur/*Height (B)*		Line Entry (C)		Cordage (D) (mm)		Line Size (in.)	
	(Kg)	*lbs*	(Kg)	*lbs*	Ø mm	*Ø inches*	mm	*inches*	mm	*inches*	Ø min	Ø max	Ø min	Ø max
Taille (size) 40 ST 4 SPEED	4,9	*10.8*	850	*1 870*	171	*6.73*	189	*7.44*	87	*3.43*	8	12	*5/16*	*1/2*
Taille *(size)* 46 ST 4 SPEED	7,1	*15.7*	1 300	*2 860*	206	*8.11*	203	*7.99*	97	*3.82*	8	14	*5/16*	*9/16*
Taille *(size)* 52 ST 4 SPEED	8,6	*18.9*	1 500	*3 300*	220	*8.66*	203	*7.99*	97	*3.82*	8	14	*5/16*	*9/16*



Working Load

DO NOT APPLY LOADS OVER INDICATED MWL, MAXIMUM WORKING LOAD.

Rope

IT IS HIGHLY RECOMMENDED TO FOLLOW OUR ROPES DIAMETER CHART ON THE PREVIOUS PAGE.

Performances

PERFORMANCES PONTOS 4 SPEED WINCHES

SIZE (Taille) 40

		Ultra-fast 1	Ultra-fast 2	Std Gear 1	Std Gear 2	Ultra-Power	Pump Gear
PONTOS GRINDER 4 SPEED WINCH	Power Ratio	2,3	8	11,6	40		
	*Line Recovery per rotation **	*70 cm.*	*20 cm.*	*14 cm.*	*4 cm.*		
PONTOS TRIMMER 4 SPEED WINCH	Power Ratio			11,6	40	112,9	32,7
	*Line Recovery per rotation **			*14 cm.*	*4 cm.*	*1,4 cm.*	*5 cm.*

* longueur d'embraque avec un tour de la manivelle

SIZE (Taille) 46

		Ultra-fast 1	Ultra-fast 2	Std Gear 1	Std Gear 2	Ultra-Power	Pump Gear
PONTOS GRINDER 4 SPEED WINCH	Power Ratio	2,3	9,3	11,7	46,6		
	*Line Recovery per rotation **	*68 cm.*	*17 cm.*	*14 cm.*	*3.5 cm.*		
PONTOS TRIMMER 4 SPEED WINCH	Power Ratio			11,7	46,6	131,3	33
	*Line Recovery per rotation **			*14 cm.*	*3.5 cm.*	*1.2 cm.*	*5 cm.*

* longueur d'embraque avec un tour de la manivelle

SIZE (Taille) 52

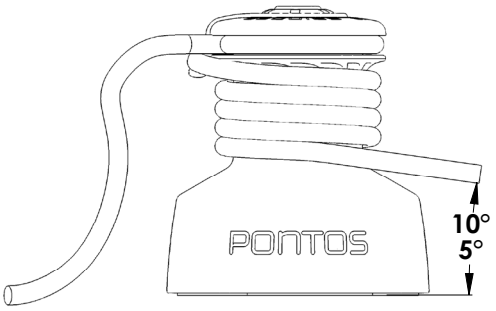
		Ultra-fast 1	Ultra-fast 2	Std Gear 1	Std Gear 2	Ultra-Power	Pump Gear
PONTOS GRINDER 4 SPEED WINCH	Power Ratio	2,3	10,6	11,6	52,8		
	*Line Recovery per rotation **	*69 cm.*	*15 cm.*	*14 cm.*	*3 cm.*		
PONTOS TRIMMER 4 SPEED WINCH	Power Ratio			11,6	52,8	148,7	32,7
	*Line Recovery per rotation **			*14 cm.*	*3 cm.*	*1.1 cm.*	*5 cm.*

* longueur d'embraque avec un tour de la manivelle

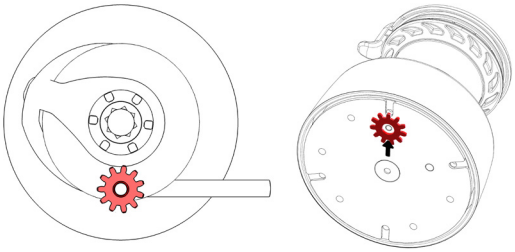
GRINDER AND TRIMMER INSTALLATION

Your winch must be installed on a flat part of the deck suitable to receive the winch. This area must be able to support twice the announced maximum working load of the winch. It is the responsibility of the customer to ensure the strength of the support and provide reinforcement if necessary.

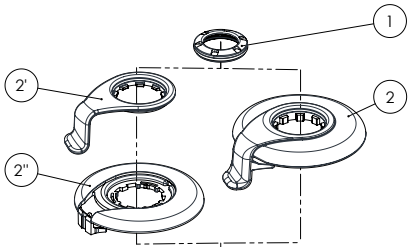
Please follow carefully the installation instructions. Fitting bolts are not supplied by PONTOS. Only A4 stainless steel bolts of the diameter indicated on the mounting template should be used.



- Place the template on the deck in such a way that the the output gear is positioned where the sheet enters the drum. This ensures the optimal performance of the winch. Carefully mark the bolt holes.
- Arrow machined in the base shows the output pinion position.
- Warning : Failure to correctly align the output gear can lead to winch failure.

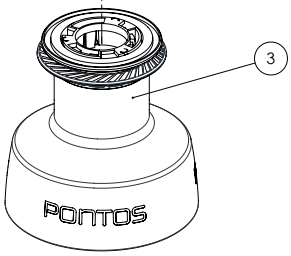


- Output gear must be on the “line in” side.
- Self-tailing feeder arm will be orientated in a position allowing free stowage of extra line.



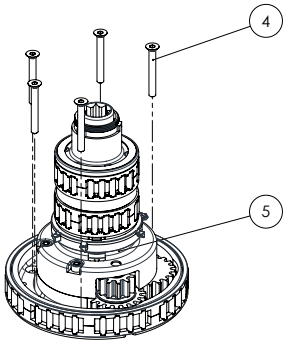
1. Unscrew the top ring.

2. Remove the top self. (either in 1 or 2 pieces depending on the version)



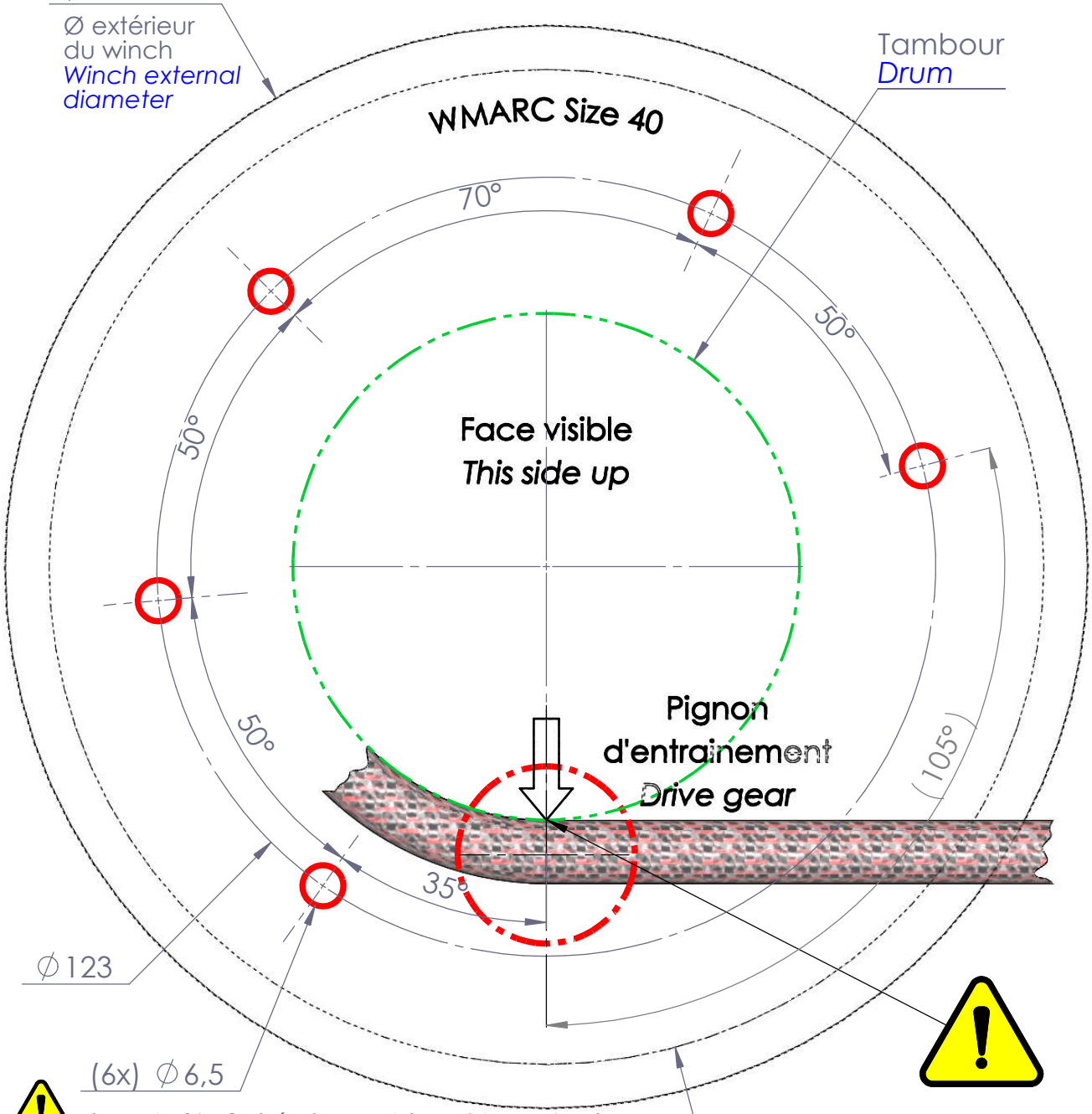
3. Remove the drum.

4. Drill the holes in your deck.

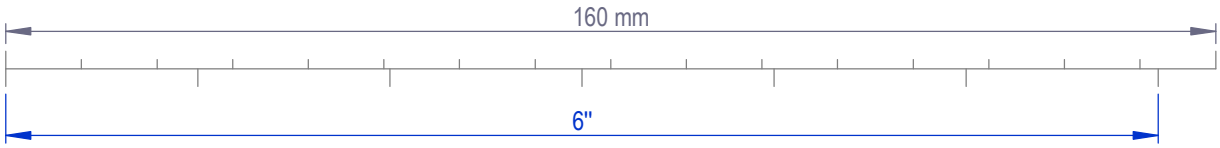


5. Apply marine grade silicone sealant around the holes. Make sure to keep draining holes clear.

- Present bolts and tight up nuts progressively
- Remove extra sealant



Vis : M6 Tête fraisée inox A4 (DIN 267 part 11) exclusivement.
Screws : use only M6 countersunk head, A4 stainless steel (DIN 267 part 11).



: Fixer le winch pour que le pignon d'entrainement soit placé à l'endroit où le cordage entre sur le winch. Utilisez la flèche sur l'embase pour vérifier l'orientation.
Un positionnement incorrect peut réduire la performance et la durée de vie du winch.

: The winch must be mounted in such a way that the drive gear is positioned where the sheet enters the winch drum. Position the arrow perpendicular to the sheet.
An Incorrect mounting can reduce the performance and the life of the winch.

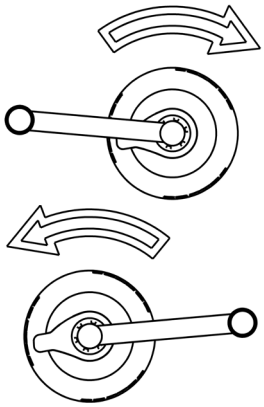
Vérifier l'échelle de l'impression avant utilisation.
Check the scale of print before use this template.

GRINDER - Ultra-Fast Winch-in

GRINDER winches from Pontos are designed to optimise the manipulation of halyards, sheets and most lines used on a sailing boat. They will enable all crew members to hoist and trim much faster, more easily and more safely in a comfortable and intuitive way.

In order to select the appropriate winch size, please refer to our website chart on www.pontos.fr

Warning: Reverse rotation for model 40

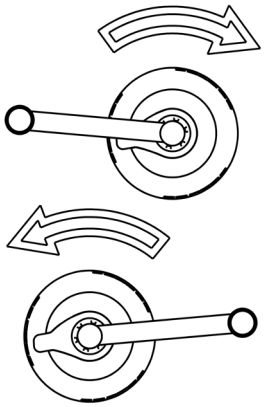


Gear 1 : **6 x** first speed of a conventional winch

Gear 2 : **2 x** first speed of a conventional winch

Automatic clutch, PONTOS patented:
As soon as load is detected, 3rd gear is set-up.

Or
> Carry on with gear 2
> Reverse the handle and engage gear 3



Gear 3 : **=** first speed of a conventional winch

Gear 4 : **=** second speed of a conventional winch

PONTOS 4 SPEED

2 SPEED

SELF-TAILING

Always make 3 turns on the drum or more if necessary. Engage the line on the feeder arm and insert in the jaws about 300° around the winch.

EASING

A) Easing while keeping some load on the line maintains your winch in speed 3-4
B) Easing completely the line will bring you back to speed 1-2

NEVER APPLY LOADS OVER THE MAXIMUM VALUES GIVEN IN OUR PERFORMANCE SPECIFICATIONS.
PONTOS WINCHES MUST NOT BE USED TO LIFT A PERSON.

Your winch must be maintained and cleaned once a year. We recommend that you rinse your winch with fresh water regularly in order to eliminate salt deposits. Failure to comply with these recommendations could lead to damage to your winch and the cancelation of your warranty.

Tools

The tools required to dismount your winch are as follow:

- Marine Oil and Grease,
- 2.5 mm and 5mm Allen Key,
- A flat screw driver.

Disassembly

1. Unscrew the top screw

2. Remove the top self (either in 1 or 2 pieces depending on the version)

3. Extract the drum by lifting

4. Remove the thrust washer (if visible, depending on the version)

5. Unscrew the stem top

6. Remove the stem stop

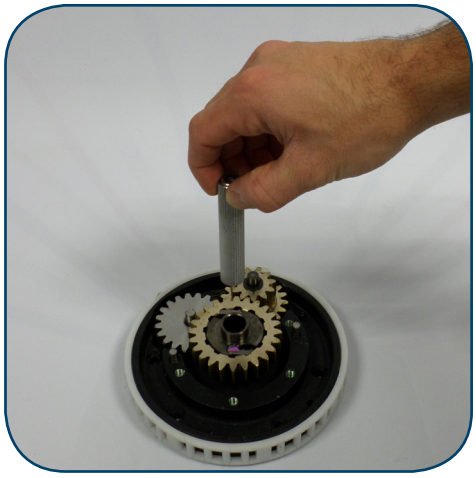
7. Remove the Grinder Module

8. Remove the planetary shaft

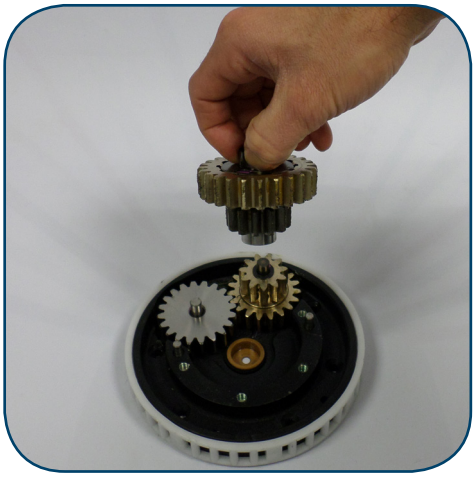
9. Remove the white needle roller bearings

10. Unscrew housing from the base

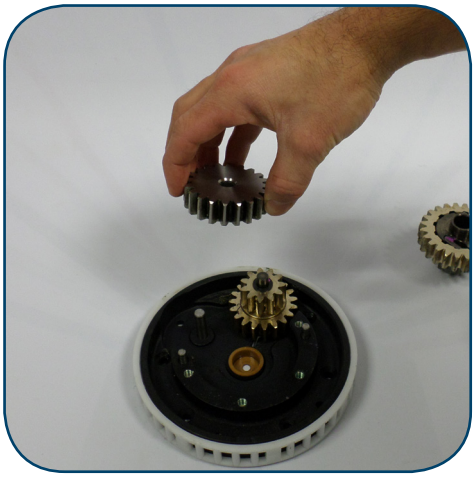
11. Remove housing



12. Pull up the central main shaft



13. Extract central pinion and pawl carrier

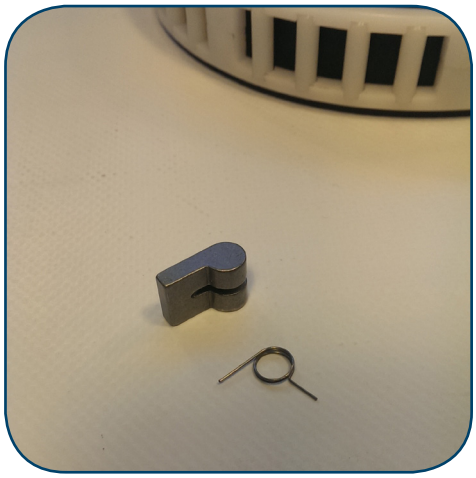


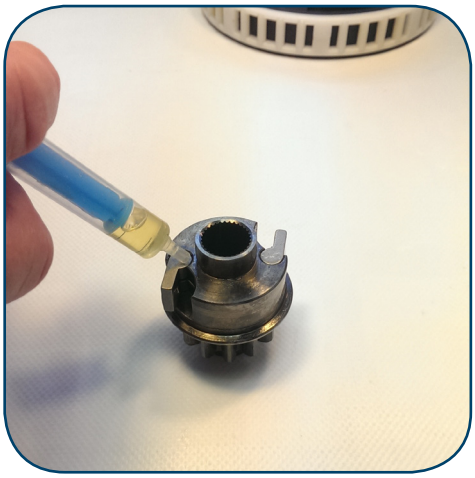
14. Extract reverse pinion

15. Extract output pinions

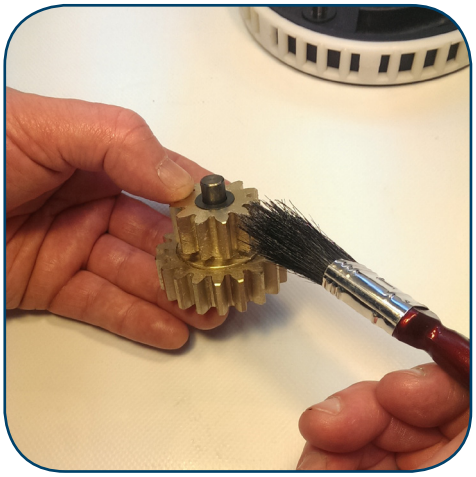
CLEANING

1. Clean and lubricate pawls and springs

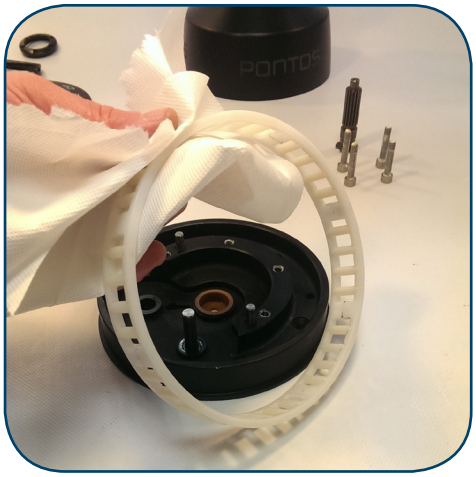




2. Verify the spring position before assembling the pawl.



3. Clean all pinions and shafts. Add marine grease with moderation. Excess Grease will retain salt.



4. Rinse thoroughly the needle bearings with fresh water.

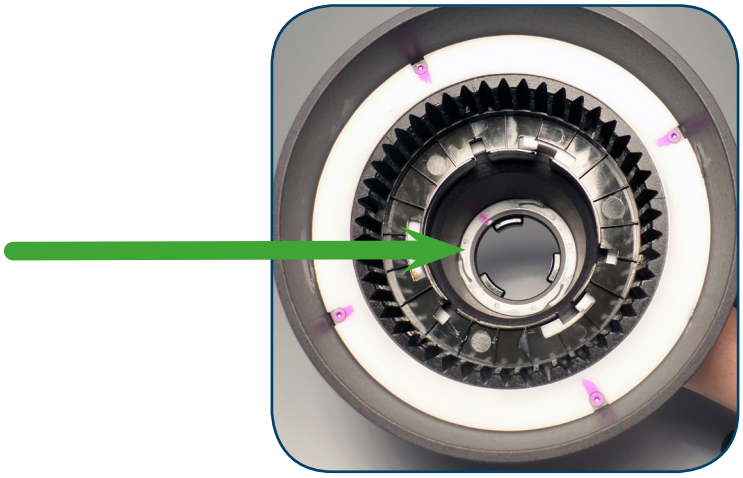
Never grease them !

Rinse generously inside the drum at least twice a year. Degrease and regrease the crown gear.

Reassembly

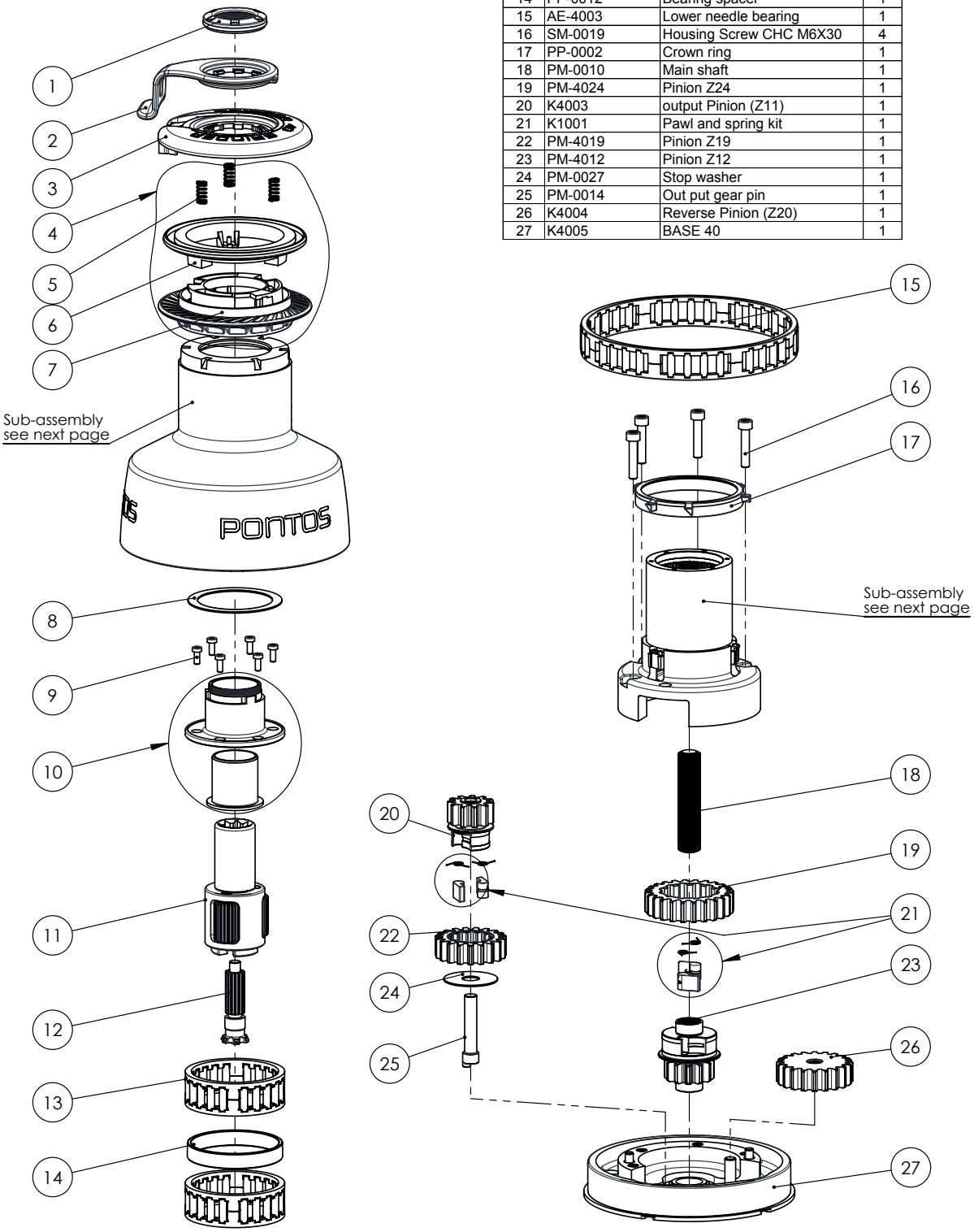
To reassemble follow all of the disassembly steps in the reverse order. (Step 15 to 1).

Version 1 : Make sure the thrust washer is properly centered on the stem top.
or
Version 2 : Ensure the thrust washer is clipped into the head of the drum.



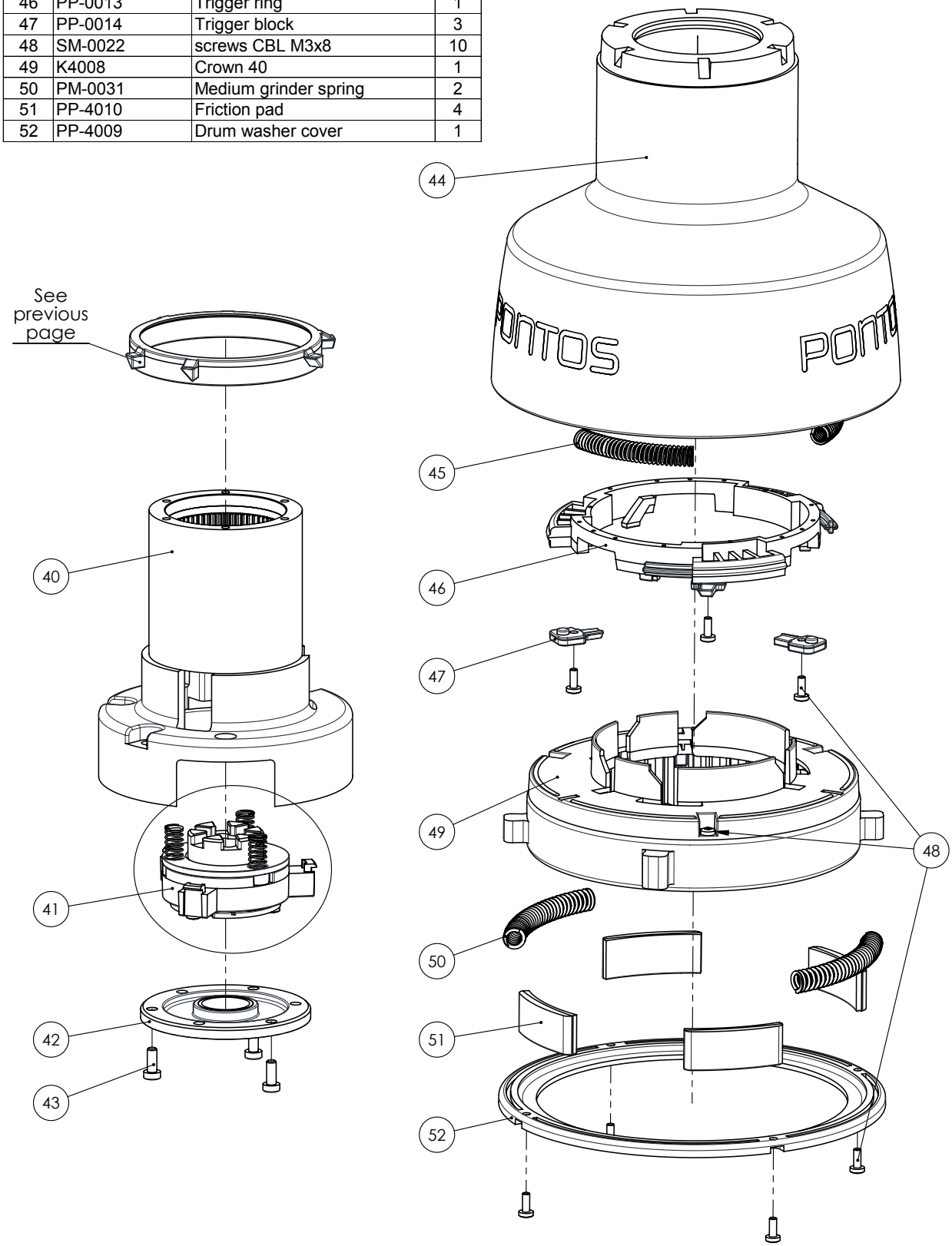
Exploded diagram Grinder 40 - 1/2

Rep	REFERENCE	DESCRIPTION	Qte
1	K1002	Top Screw	1
2	PM-4005	Feeder arm	1
3	PP-4004-2	Top cap GRINDER 40	1
4	K4001	Self tailing kit	1
5	PM-0032	Top self spring	3
6	PP-4002	Upper self jaw	1
7	PP-4001	Lower self jaw	1
8	K1003	Thrust Washer	1
9	SM-0017	screw CHC M4x10	10
10	K1004	Stem top	1
11	K1005	Grinder module	1
12	PM-0020	Planetary shaft R Z15	1
13	AE-6475	Top needle bearing	2
14	PP-0012	Bearing spacer	1
15	AE-4003	Lower needle bearing	1
16	SM-0019	Housing Screw CHC M6X30	4
17	PP-0002	Crown ring	1
18	PM-0010	Main shaft	1
19	PM-4024	Pinion Z24	1
20	K4003	output Pinion (Z11)	1
21	K1001	Pawl and spring kit	1
22	PM-4019	Pinion Z19	1
23	PM-4012	Pinion Z12	1
24	PM-0027	Stop washer	1
25	PM-0014	Out put gear pin	1
26	K4004	Reverse Pinion (Z20)	1
27	K4005	BASE 40	1



Exploded diagram Grinder 40 - 2/2

Rep	REFERENCE	DESCRIPTION	Qte
40	K4006	GRINDER Support 40	1
41	AE-0001	Clutch assembly	1
42	K1007	Stop Ring	1
43	SM-0017	screw CHC M4x10	10
44	PM-4006	Drum	1
45	PM-0041	Trigger ring spring	3
46	PP-0013	Trigger ring	1
47	PP-0014	Trigger block	3
48	SM-0022	screws CBL M3x8	10
49	K4008	Crown 40	1
50	PM-0031	Medium grinder spring	2
51	PP-4010	Friction pad	4
52	PP-4009	Drum washer cover	1



Warranty

Thank you for purchasing our PONTOS products. The warranty covers defects in materials and manufacturing of the Pontos products during the warranty period as defined below.

It is intended for the original purchaser of the product upon presentation of proof of purchase. The Pontos range of **products is guaranteed for 5 years from the date of purchase**.

To validate this warranty, please visit our website: www.pontos.fr and fill out the warranty form on the Customer's page. After the end of the warranty period, Pontos will not accept responsability for any other form of guarantee either implicit or explicit for either private or commercial use. Depending on the country, other guarantees may exist depending on the applicable law, the provisions of this warranty are not intended to counter these imperatives.

Application of warranty Procedure for warranty registration.

The warranty is applicable for the duration of its validity from the date of purchase.

I have a defective product ? What should I do ?

You will first need to define the problem by completing a «Product Return Form» available under customers profile of our site www.pontos.fr. On receipt of the completed Product Return Form, Pontos will analyse the defect and make a diagnosis. If the defect has not been caused by incorrect use of the winch then Pontos will decide to either replace, repair or establish a credit note on the defective products reported. The shipping costs to return products are not supported by Pontos. This warranty does not cover the costs associated with the diagnosis of an outside professional, port fees or reinstallation of the product.

The Warranty does not cover, and Pontos cannot be held responsible :

- If the product is degraded during a return process (e.g inadequate protection)
- If the product has been modified with unauthorized spare parts
- If the product's serial number has been removed, defaced or altered
- If the product has been subject to improper installation as per Pontos recommendations
- If the product has not been properly maintained as specified in the maintenance manual
- If the product has been used beyond its capacities or in an inappropriate way
- Used for a purpose other than for a maritime use for which the product was designed.
- If unauthorized modifications or repairs have been made
- For normal wear expected to be found during normal use of a winch

Responsibility

Pontos will not be responsible for:

- any loss of revenue expected, profits or indirect economic or consequential loss
- damages, costs or expenses payable to any third party
- damage to yachts or Equipment
- death or personal injury (unless they have been caused by the negligence of Pontos)